Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

03-ERD-0112

MAY 06 2003

Mr. Ken Niles
Administrator
Oregon Office of Energy
Nuclear Safety Division
625 Marion Street, NE, Suite 1
Salem, Oregon 97301-3742

Dear Mr. Niles:

EXPLANATION OF SIGNIFICANT DIFFERENCE FOR THE 100-NR-1 OPERABLE UNIT TREATMENT, STORAGE AND DISPOSAL INTERIM ACTION RECORD OF DECISION AND 100-NR-1/100-NR-2 OPERABLE UNIT INTERIM ACTION RECORD OF DECISION

Thank you for submitting Oregon Office of Energy's comments on the above-referenced document in your letter dated March 4, 2003 to the U.S. Department of Energy, Richland Operations Office (DOE). We appreciate your input on Hanford Site cleanup decisions as well as your support for prohibiting irrigation at the 116-N-1 waste site and revising the annual institutional control report requirement. Responses to your comments are included below.

Comment 1: "Oregon is uncertain as to DOE's clean up strategy for the 100-NR-1 and 2 Operable sites in the N-Area at Hanford. That causes us considerable concern. Oregon expects DOE to continue with the present interim action until a final clean up action has been selected for the entire N-Area. It is our expectation that the U.S. Department of Energy, Richland Office (DOE-RL) will develop a work plan to guide the technical and scientific studies necessary to characterize, assess and define clean up options for the N-Area. This open process, known as the Data Quality Objectives (DQO) process, should be completed prior to the creation of the comprehensive work plan."

Response to Comment 1:

DOE continues to implement the interim cleanup actions at the 100-N Area as described in the Records of Decision (RODs). As final RODs are developed, the necessary data will be gathered, including any plans to support the final decisions. Input from the public, stakeholders, and tribes are part of the cleanup process.

Comment 2: "The comprehensive work plan will guide the development of the Remedial Investigation and Feasibility Study for the N-Area (N-Area RI/FS). It is incumbent upon DOE-RL and its regulators to discuss the many studies that may be required for the N-Area RI/FS by using an open process that involves a wide range of stakeholders. An open process to establish the scope of these characterization studies, assessment of risk evaluations, and clean up options is necessary to develop a broadly supported partnership-driven remedial approach."

Response to Comment 2:

As final RODs are developed, the necessary data will be gathered, including any plans to support the final decisions. Input from the public, stakeholders, and tribes are part of the cleanup process. Development of a comprehensive work plan was not within the scope of the Explanation of Significant Difference (ESD).

Comment 3: "As part of the N-Area RI/FS, we expect that the proposed institutional controls will be re-analyzed based upon the selected clean up strategy, potential future site uses, and treaties preserving Native American rights. To credibly establish the protectiveness of the cleanup method chosen, Oregon expects that DOE-RL will conduct the necessary characterization, monitoring and ecological studies to support the draft comprehensive N-Area RI/FS. Characterization actions must include an evaluation of the highly variable geologic nature of the vadose and saturated zones, including contaminant movement. DOE should also characterize the ecological impacts of potential future actions on populations and individuals."

Response to Comment 3:

See Response to Comment 2.

Comment 4: "Monitoring of natural processes must be conducted to verify our understanding of the key environmental behaviors used to estimate risk to human health and the environment. Uncertainty associated with field measurements taken for the groundwater computer models should be presented along with estimated risks. The risk assessment must include residential and industrial scenarios, Native American scenarios, and agricultural scenarios based upon the surrounding Columbia Basin agribusiness practices."

Response to Comment 4:

The DOE, Washington State Department of Ecology (Ecology), and U.S. Environmental Protection Agency (EPA), also known as the Tri-Parties, recognize natural processes associated with risk assessment. The risk assessment scenario is already in place for the interim action RODs, and no changes to the model input parameters were identified in the ESD, except eliminating irrigation. Development of other risk assessment scenarios is not within the scope of the ESD.

Comment 5: "Following the development of a clear, stakeholder supported analysis of potential future risks, DOE must present a thorough analysis of potential site clean up strategies. Oregon recommends that DOE evaluate excavation options, mining options, containment options, in-situ treatment options, ex-situ treatment options, passive options, and hydraulic controls, along with the required no further action evaluation. Oregon further expects that studies required to evaluate clean up options would be completed prior to presentation of the draft comprehensive N-Area RI/FS Report."

Response to Comment 5:

As final RODs are developed, the necessary data will be gathered, including any plans to support the final decisions. Input from the public, stakeholders, and tribes are part of the cleanup process. Should additional studies in the 100-N Area be necessary, the appropriate plans will be developed.

Comment 6: "The clean up options analysis presented in the draft Explanation of Significant Difference lacks the necessary engineering rigor to develop a meaningful critique of the two excavation techniques presented. Options to remove the contaminated soils that will continue to degrade groundwater should be more critically developed. They should include clean up process logic, treatment and disposal options, utilize a common cost estimating basis, general project schedules and include conceptual design calculations, along with an evaluation of clean up effectiveness."

Response to Comment 6:

Use of existing excavation equipment and practices continue to meet the goals and objectives of the selected remedy in the interim action ROD. Evaluation of these other alternatives was provided against the use of the current excavation equipment in the ESD to compare the balancing factors. The Tri-Parties recognize this effort was not a feasibility study for changing the remedy in the ROD, as feasibility studies would provide the technical rigor to select a preferred option remedy.

Comment 7: "We support incorporating the N-Area annual reports with Hanford's sitewide annual institutional control reporting requirements. We also agree with DOE's recommendation suspending irrigation above contaminated site soils. However, the expectation that institutional controls will effectively protect human health and the environment for hundreds of years is not presently well founded. Such a conclusion must be developed as part of the comprehensive N-Area RI/FS report."

Response to Comment 7:

The Tri-Parties recognize your concerns, including past institutional control (IC) failures. However, the RODs requires that DOE submit a report to EPA and Ecology by July 31 of each

year, or as required by the *Sitewide Institutional Controls Plan for Hanford CERCLA Response Action,* summarizing the results of the evaluation for the preceding calendar year, including improvements. This annual review of ICs is the primary mechanism to assure irrigation is not applied. EPA's recent revision of the IC guidance was developed to improve the viability of ICs based on past failures, and improvements were made to minimize IC failures. As identified in the *Record of Decision: Hanford Comprehensive Land-Use Plan Environmental Impact Statement (HCP EIS)* (CLUP ROD), the 100-N location is identified as a preservation area and also states that it may be necessary to restrict certain activities to prevent the mobilization of contaminants, the most likely example of which is the restriction of activities that discharge water to the soil. Future ICs will likely be elements on final RODs, and will be developed based on experiences gained through the implementation of interim action RODs.

If you need further information or assistance, please contact me at (509) 372-1544.

Sincerely,

Douglas C. Smith
Project Manager

ERD:DCS

cc: N. Ceto, EPA
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Task Detail Report 05/06/2003 01:06 PM

Task #: DOE-ERD-2003-0112

Parent Task #:
Subject: CONCUR: EXPLANATION OF SIGNIFICANT DIFFERENCE FOR THE 100-NR OPERABLE
Category: None
Due Date:
Originator: Gloria, Ofelia T

Reference #:
Deliverable: None
Status: Open
Priority: High
Originator Phone: (509)376-5441

Assigned By: Self
Assigned Role: Originator

Assigned Date: 05/06/2003
Assigned Due Date:

Routing Lists: ⊞ **Route List - Active**
⊡ Smith, Chris - Approve - Awaiting Response

Instructions:
bcc: ERD OFF FILE
ERD RDG FILE
DC SMITH, ERD
HE BILSON, AMRC
KD BAZZELL, ERD
KV CLARKE, COM
EB DAGAN, RCA
DT EVANS, FTD
MH SCHLENDER, DEP
BD WILLIAMSON, OCC

RECORD NOTE: Responding to comments of Oregon Office of Energy regarding ESD for the 100-NR Operable Unit Treatment, Storage and Disposal Interim Action ROD.

Attachments: 1. 03-ERD-0112.doc
Comments

Task Due Date History:

Date Modified	Task Due Date	Modified By

-- End of Report --